

# POOLS

Pools and hot tubs maximize outdoor fun. Before you make the big investment and start digging, though, know all the facts. TEXT **LUCIE GRYS**



**T**hink putting a pool in your backyard is as simple as digging a big hole, lining it and filling it with water? Think again. Pool engineering and design is big business, and it can vary in cost and complexity, depending on the size and type of pool you want. Backyard access, the slope and grade of your property, the placement of existing drainage and sanitation pipes and your water source (whether you are hooked up to a municipal water supply or have to truck in water) can also affect your estimate and design.

When hiring a pool company, look for one with an excellent track record, years of experience, great references and membership with the Pool and Hot Tub Council of Canada ([www.poolcouncil.ca](http://www.poolcouncil.ca)). The national organization promotes professionalism and quality in the industry and only accepts members who pass several checks, including having proof of general liability insurance and workmen's

compensation coverage, being in good standing with the Better Business Bureau, having been in business for at least one year and signing an agreement that they will abide by the council's code of ethics.

A basic vinyl or fibreglass pool package (including site excavation, filter installation and concrete surround decking) can range from \$25,000 to \$65,000. For concrete pools, prices start at roughly \$50,000, and this price may or may not include fencing around the property or around the perimeter of the pool, electrical hookups, the rerouting of drainage pipes and the installation of lighting. Also, it may or may not factor in more advanced surround decking options, such as stamped concrete or interlocking pavers.

Many pool companies offer financing options, but you should ask about interest payments and be willing to shop around for the best pool loan. A good pool company will be able to present a number of options based on your >>

# TYPES OF POOLS

## ■ ABOVE-GROUND POOLS

Not only are above-ground pools a lot easier on the wallet (about \$5,000 to \$10,000) but they also take only days to install, as opposed to weeks for in-ground pools. When installing an above-ground pool, it's essential that the pool have enough



support (achieved with posts, buttresses, blocks and sub-base). Despite the budget-friendly price tag, it may be worth spending money on a more permanent pool if you plan to stay in your home, as above-ground pools last only 10 years in most cases.

## ■ VINYL POOLS

For in-ground pools, going the vinyl route can be the most cost-effective choice for many homeowners. Vinyl pools are available in a wide range of colours, patterns, sizes and shapes. The average price range for a vinyl pool is between \$25,000 and \$60,000. Vinyl liners need to be replaced about once every 10 years and can last even longer when installed over a sub-layer of wall foam, which protects the liner from rips and punctures. Vinyl liners can also be coated with a low-VOC coating to prevent fading from UV rays, pool chemicals and bacteria. It's critical that a vinyl-lined pool never be completely drained as many liner warranties become void if the pool is completely drained.

## ■ FIBREGLASS POOLS

Available in a variety of shapes and sizes, with stairs and seating areas moulded into the form, fibreglass pools are smoother to walk on than



concrete and not as slippery as vinyl pools. And, unlike concrete and vinyl pools, which are susceptible to algae because of their porous surfaces, fibreglass pools have a seamless, poreless form that resists bacteria, reducing the need for chemical cleaning. Fibreglass pools also don't leach chemicals and rust into groundwater like vinyl and concrete do, and are less prone to fade over time than vinyl pools. A fibreglass pool can cost from \$25,000 to \$60,000. A typical fibreglass-pool surface should last 15 to 20 years before a protective UV gel coat—which is also available in an eco-friendly, low-VOC option—needs to be applied. In areas with high water tables, hydrostatic relief valves must be installed to allow ground water to enter the pool and relieve pressure.

## ■ CONCRETE POOLS

Poured-concrete or gunite (a mixture of cement and sand similar to concrete that is sprayed onto rebar framework that is built into the excavated site to form the shell of the pool) swimming pools are the most expensive option, with the cost for a mid-range concrete pool at \$50,000 to \$75,000. Still, they're a popular choice because they are more durable than vinyl and fibreglass pools and can be designed to any shape. However, they can carry hefty maintenance and repair costs. Also, concrete pools need to be acid-washed every two years to remove algae growth and oils. (Be sure to hire a professional to make sure that this is done safely, and check with local water authorities to learn about waste-water discharge regulations.)

budget and should be open to phasing in your dream pool and backyard plans over several years. "If you want an outdoor fireplace feature for your new backyard patio but it's not in the budget right now, we can rough in the gas line so that when you're ready to do it, the mechanics are in place and you don't need to disrupt the pool's construction," says Ed Gibbs, president and CEO of Gib-San Pools in Toronto and past president of the Pool and Hot Tub Council of Canada.

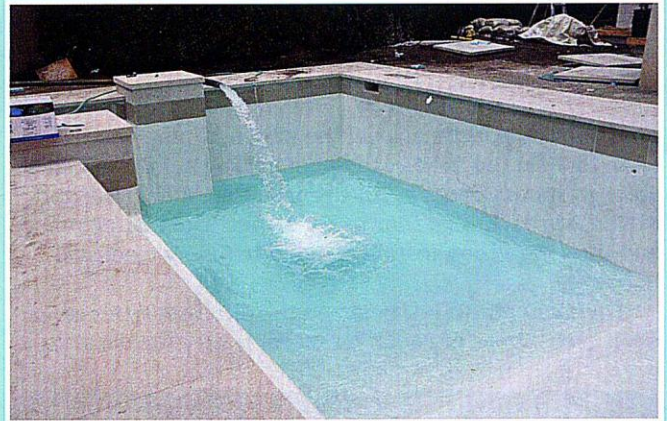
**What's involved** As part of your initial consultation, a pool designer will visit your property to review wind, sun and shade patterns and help you decide on the best location for a pool. They should also ask the homeowner for an up-to-date land survey (to check property limits), check for buried utilities and natural gas (which

might affect the location of the pool) and get the process going for necessary permits (fencing and pool permits, as well as electrical or topical grade permits, if needed).

The entire process—from the time the pool company shows up to the point where you can swim in your pool—can take anywhere from a few weeks to a few months, depending on how many details you want to incorporate into your pool. Keep in mind the permit process normally takes a few weeks, according to Gibbs.

Once the permit is in place, the building process begins with marking off the site and digging the hole where the pool will go. "Your pool company will need to truck away any fill and set up the pool wall, frost wall, stairs and receptacles for skimmers, lights and return water jets around the perimeter of the pool," says Derek Redden, owner of R & R Pools in Timberlea, N.S. "Then we will install the >>

# THE PROCESS



**A CONCRETE POOL IN THE MAKING:** Once the permit is in place, the building process begins with marking off the site and digging the hole where the pool will go. "Your pool company will need to truck away any fill and set up the pool wall, frost wall, stairs and receptacles for skimmers, lights and return water jets around the perimeter of the pool," says Derek Redden, owner of R & R Pools in Timberlea, N.S. "Then we will install the pool plumbing system, level the pool and pour the concrete to form the base of the pool and walls." Once that's done, swimming pool lights are installed, if desired, and the pool is backfilled four to six inches. The heater, pump and filters are then installed, along with any electrical hookups.

Automatic pool covers provide safety, solar heating and winter protection.



# POOL COVERS

A pool cover can be used to reduce the operating and maintenance costs of a pool and for safety. Here are your options:

■ **SAFETY COVERS** fit snugly and securely on top of the pool. If there are young children at home, a safety cover is strongly recommended.

■ **SOLAR COVERS** increase the pool's temperature and reduce heat loss by absorbing sunlight during the day and retaining

warmth at night. They can also reduce water evaporation by 95 percent, helping to conserve water.

■ **WINTER BLANKETS** keep your pool free from leaves, sticks, rocks and other debris over the winter months. They are built to withstand wind, rain, snow and cold temperatures.

■ **AUTOMATIC COVERS** serve three purposes: safety, solar heating and as a winter covering. They can range from \$10,000 to \$20,000, compared to a few hundred dollars each for solar covers, safety covers and winter blankets, but the multitasking, longer-lasting investment is worth the cost.

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The main difference between the different types of pools (see "Types of Pools" for more) is how the basin is



Pool and hot tub fencing bylaws vary across Canada, so check with your local authority for details.

constructed. For vinyl-lined pools, a construction crew digs a hole, sets up the wall around the hole's perimeter, lays sand along the bottom of the hole and secures a vinyl lining to the structural wall.

For fibreglass pools, a construction crew excavates and grades the hole, lays the necessary plumbing, adds filler and lowers the preformed pool structure into the hole by crane. Then they level the pool and hook up the plumb-

ing. While the pool is filled with water, the area around the perimeter of the pool is backfilled simultaneously to create equal forces pushing on the fibreglass walls, preventing bowing or twisting of the pool's form.

While these pool designs are different, they all rely on the same basic plumbing and filtering systems. Essentially, a pool works by pumping pool water from your property's water source into the pool and sucking it back through the pool's filtration system. There, dirt and debris are removed and water is sanitized and pumped back into the pool as clean water. Energy-efficient pumps with innovative hydraulic designs move water more efficiently and can reduce energy consumption by at least 15 percent, saving homeowners hundreds of dollars in operating costs.

There are three main types of filters to choose from: sand, cartridge and diatomaceous earth (DE) filters. Sand filters

are the most affordable option (about \$500) and catch dirt and debris in sand placed inside a large tank. These filters are also the most complex to maintain, requiring weekly cleaning, and the sand must be replaced every three to five years for maximum efficiency. Cartridge filters, which use a filter made of polyester cloth or corrugated paper, are more expensive (about \$900) but can filter more debris than sand filters. They should be cleaned out once or twice a year. DE filters (about \$600), which use a series of grids coated with diatomaceous earth, have the ability to filter out microscopic debris and are more effective at cleaning than sand and cartridge filters. They should be cleaned a couple of times a year and replaced every 10 years.

**Keeping clean** In addition to maintaining filters, water sanitizers are another way to make sure your pool is at its best. Chemicals like chlorine and bromine may keep a pool looking great by killing all the algae and bacteria growth, but there are a lot of concerns about how healthy they are for you and your family to swim in. In the *Journal of Pediatrics*, for example, researchers found that teens who spent more than 1,000 hours swimming in chlorinated pools were up to 15 times more likely to have asthma than those who swam mainly in unchlorinated pools.

Although it's not a new technology, the trend to use »

# HOT TUBS

Relatively inexpensive (starting at roughly \$2,000), with the added bonus that it can be used year-round, a hot tub can be a great investment, but location is key.

When you're selecting a site for your hot tub, look for a stable, level area that can support the weight of the unit. (If you're eyeing your deck, know that it will have to be reinforced and that a permit may be required.) In most municipalities, fencing and/or self-closing and self-latching gates are required by law to prevent unsupervised access to the hot tub by children—check with your local building department to find out about any applicable barrier requirements. The hot tub should be located away from power lines and close enough to a dedicated 110- or 220-volt power outlet. Locating a hot tub close to a water source is

also a smart idea so that it's easier to fill up. Any electrical hookups should be done by a certified electrician and may need a permit as well.

With safety top of mind, homeowners should also use a locking safety cover when the hot tub isn't in use. If you're using a hot tub during the winter months, use an insulated cover that is lockable to retain heat, and consider a winterizing kit. To keep the water temperature at a safe level when in use, a special hot tub thermometer should be used. The water temperature in your hot tub should not exceed 40°C (104°F).

It's no secret that hot tubs can be breeding grounds for disease and germs because bacteria flourish in warm, wet conditions and hot tubs have a smaller water-per-person ratio. According to Derek Redden, owner of R & R



Pools in Timberlea, N.S., a hot tub should be tested twice a week. You should also clean your hot tub each week. (Try natural solutions such as Natural Chemistry, or an ozone generator, which uses ozone to help kill bacteria, germs, viruses and contaminants in water, so that less sanitizer is needed.) The filter and safety cover should also be scrubbed clean every month. And as with any major purchase, ensure that the company you buy your hot tub from is reputable and that it offers a warranty on its products.

**Maintenance** With the right knowledge and equipment, homeowners can easily care for and maintain their pool (your pool company can advise you on both). Others may prefer to hire a pool company to do weekly visits to test the pool's water, ensure that the water is safe for swimming and check that the mechanics are functioning well.

Prices for pool maintenance can range from \$50 to more than \$200 each month, and it generally costs from \$300 to \$500 to open and close your pool. You can also hire a waste water haulage company to remove the pool water to be recycled off-site.

salt water instead of chlorinated water is catching on. Salt water is considered a healthier, more environmentally friendly approach because it's a natural resource that replaces the use of harsh chemicals. Salt also acts as a natural algae inhibitor, but you will need a salt-water chlorine



Any electrical hookups should be done by a certified electrician and may need a permit as well.

generator, which produces a pure, natural form of chlorine that does most of its work in the pipe and then dissipates very quickly. This ensures that safe levels of chlorine are always circulating in your pool to prevent algae and bacteria growth, but the residual chlorine in your pool is less than one-third of what you're accustomed to.

Another eco-friendly option is ECOsmarte. This non-salt, non-chemical technology uses low-level voltage, copper ionization and oxidation to disinfect water. It boasts lower operating costs than salt water systems and is easy to install.

**Safety first** Without a doubt, pool safety should be everyone's top priority—not only when building a pool but also once everything is in place. Before the vinyl liner is installed in a vinyl pool, or the plaster coating is finished in a concrete pool, fencing may need to be built and/or self-closing and self-latching gates installed to prevent unsupervised access to a pool or hot tub by children in accordance with municipal bylaws. You'll need permits for these. Pool and hot tub fencing bylaws vary across municipalities in Canada, so check with your local authority for details. The pool and fencing must be inspected by the city before the pool is filled with water.

Any electrical hookups should be done by a certified electrician and may need a permit as well. Once permits are issued, inspectors will come out and evaluate the progress of the pool to ensure that fencing and electrical comply with local safety standards and building codes.

You should also check with your insurance provider to see about additional liability insurance for installing a pool. Adding safety features, such as alarms, gates and safety tarps, will increase safety and may result in a reduction in your insurance costs. With the right precautions in place, a private pool will offer countless years of fun in the sun. ☐